

Docket No.: W1878.0109 8/27/02

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Atsushi SASAKI

Confirmation No. 9140

Application No.: 09/039,072

Group Art Unit: 2644

Filed: March 13, 1998

Examiner: Laura A. Grier

For:

LOUDSPEAKER UNIT ADAPTED TO

**ENVIRONMENT** 

Commissioner for Patents Washington, DC 20231

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Technology Center 2500

## **REQUEST FOR RECONSIDERATION**

Dear Sir:

In response to the Office Action dated May 23, 2002, it is requested that the Examiner reconsider the pending claims in view of the following remarks.

Claims 1-9 remain pending in the present application. Claims 1, 4, 6 and 8 are rejected 35 U.S.C. § 102(e) as being anticipated by Craven et al. (U.S. Patent No. 5,815,580).

The present invention as recited in claim 1 includes:

a processor for comparing in real time an output signal from the microphone with an output signal from a sound source with reference to a frequency characteristic and an echo characteristic of the sound regenerated from the loudspeaker, or a reverberation characteristic of the sound, including the delay time for the echo characteristic or the reverberation characteristic, and correcting a signal from the sound source using the difference in output signal between the microphone and the sound source by reference to the frequency characteristic and the echo characteristic or the reverberation characteristic."

In contrast to the present invention as recited in claim 1, Craven discloses a preecho compensator which corrects both amplitude and phase from an output of a loud
speaker 1 by utilizing a filter 5. A coefficient calculator 6 receives a signal from the
microphone 7 and it calculates the coefficiency for the filter 5 and supplies it to the filter 5.

In this way, filtered audio reproduction is enabled which compensates for both amplitude
and phase changes utilizing only the information received from the calculator 6. Hence,
Craven fails to compare a microphone output signal and a sound source output signal with
reference to a frequency characteristic and an echo characteristic of the sound regenerated
from the speaker, for a reverberation characteristic of the sound, including the delay time
thereof, in correcting the sound source output signal based on the difference with reference
to certain characteristic, as recited in claim 1.

In paragraph 2 of the Office Action, the Examiner equates the digital filter 5 of Craven with that of the processor, as recited in claim 1 of the present invention. Applicant respectfully disagrees. Filter 5 merely filters the input sound source prior to amplification by the loudspeaker. (See col. 6, lines 66-67 to col. 7, lines 1-12). In other words, the filter 5 of Craven does not in any way compare in "real time an output signal from the microphone with an output signal from a sound source" as recited in claim 1.

In view of Craven's failure to teach each and every feature of Applicant's invention as recited in claim 1 as described above, Craven cannot anticipate the claimed invention. Claims 4, 6 and 8 depend from claim 1. Accordingly, withdrawal of this rejection is respectfully requested.

Claims 2, 3, 5, 7 and 9 are rejected under 35 U.S.C. § 103(a) as being obvious over Craven in view of Yashima et al. (U.S. Patent No. 5,953,431). Craven is deficient as described above and cannot cure the deficiencies of Yashima as previously discussed in

Applicant's Amendment of March 6, 2002. Even if combined, the resultant combination does not read on the present invention as recited in claims 1-9. Hence, the claimed invention cannot be rendered obvious by a combination of Craven and Yashima. In view of the foregoing, withdrawal of the rejection under Section 103 is respectfully requested.

As all of claims 1-9 have been demonstrated to be allowable over the prior art of record, applicant further submits that the present application is currently in condition for allowance, where upon early and favorable reconsideration in this regard is courteously solicited.

Dated: August 22, 2002

Respectfully submitted,

Michael J. Scheer

Registration No.: 34,425

DICKSTEIN SHAPIRO MORIN &

OSHINSKY LLP

1177 Avenue of the Americas, 41st Floor

New York, New York 10036-2714

(212) 835-1400

**Attorneys for Applicant** 

MJS/EO/hc/mgs